Chapter 1
Competition between the German Labour Union and the French Labour Union

1. The Dynamic Model

1) The static model. The world consists of two monetary regions, say Europe and America. The exchange rate between Europe and America is flexible. Europe in turn consists of two countries, say Germany and France. So Germany and France form a monetary union. There is international trade between Germany, France and America. German goods, French goods and American goods are imperfect substitutes for each other. German output is determined by the demand for German goods. French output is determined by the demand for French goods. And American output is determined by the demand for American goods. European money demand equals European money supply. And American money demand equals American money supply. There is perfect capital mobility between Germany, France and America. Thus the German interest rate, the French interest rate, and the American interest rate are equalized. The monetary regions are the same size and have the same behavioural functions. The countries in the monetary union are the same size and have the same behavioural functions.

As a result, an increase in German nominal wages lowers German output. And what is more, it lowers French output. On the other hand, it raises American output. Here the fall in German output is larger than the fall in French output. And the fall in European output is larger than the rise in American output. Correspondingly, an increase in French nominal wages lowers French output. And what is more, it lowers German output. On the other hand, it raises American output. Here the fall in French output is larger than the fall in German output. And the fall in European output is larger than the rise in American output.

In the numerical example, an increase in German nominal wages of 100 causes a decline in German output of 120, a decline in French output of 30, and an increase in American output of 50. Likewise, an increase in French nominal

wages of 100 causes a decline in French output of 120, a decline in German output of 30, and an increase in American output of 50.

Compare this with the results obtained in Part One. First consider the small monetary union of two countries. In the basic model, a 1 percent increase in German nominal wages causes a 0.8 percent decline in German output and a 0.2 percent decline in French output. So the ratio of Germany to France is 0.8/0.2 = 4. In the current section, an increase in German nominal wages of 100 causes a decline in German output of 120 and a decline in French output of 30. So the ratio of Germany to France is 120/30 = 4. Strictly speaking, what matters here is that the two ratios are identical. Note that by assumption Germany and France are the same size.

Second consider the world of two monetary regions. In the basic model, a 1 percent increase in European nominal wages causes a 0.75 percent decline in European output and a 0.25 percent increase in American output. So the ratio of Europe to America is 0.75/0.25 = 3. In the current section, an increase in European nominal wages of 100 causes a decline in European output of 300 and an increase in American output of 100. So the ratio of Europe to America is 300/100 = 3. What matters here is that the two ratios are identical. Note that by assumption Europe and America are the same size.

Now have a closer look at the process of adjustment. An increase in German nominal wages causes an increase in the price of German goods. This in turn causes an appreciation of the euro, a depreciation of the dollar, and an increase in the world interest rate. The increase in the price of German goods lowers German exports. On the other hand, it raises French exports and American exports. The appreciation of the euro lowers German exports and French exports. The depreciation of the dollar raises American exports. And the increase in the world interest rate lowers German investment, French investment and American investment. The net effect is that German output and French output move down. However, American output moves up. This model is in the tradition of the Mundell-Fleming model and the Levin model, see Part One.

The static model can be represented by system of three equations: